

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel in the order listed on Form Page 2.  
Photocopy this page or follow this format for each person.

NAME	POSITION TITLE
FADEN, Alan I.	Professor and Director, Georgetown Institute for Cognitive and Computational Sciences

**EDUCATION/TRAINING** (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of PA; Philadelphia, PA	B.S.	1966	Physics
University of Chicago; Chicago, IL	M.D.	1971	Medicine
Presbyterian-Univ. of PA Med. Ctr.; Philadelphia, PA		1971-72	Straight Int.Med.Intern
Univ. of CA, San Francisco; San Francisco, CA		1972-74	Resident (Neurol.)
Univ. of CA, San Francisco; San Francisco, CA		1974-75	Chief Res. (Neurol.)

**RESEARCH AND PROFESSIONAL EXPERIENCE:** Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

- 1975-80 Walter Reed Army Institute of Research, Washington, DC  
Research Neurologist, Department of Medical Neuroscience
- 1977-84 Uniformed Services University of the Health Sciences  
Assistant Professor of Neurology (1978-79)  
Associate Professor of Neurology (1978-81) & Medicine (1980-81)  
Vice-Chairman and Director of Research, Department of Neurology (1980-82)  
Professor of Neurology (1981-84) and Physiology (1983-84)  
Chief, Neurobiology Research Unit (1982-84)
- 1984-91 University of California, San Francisco  
Vice-Chairman, Department of Neurology (1984-90)  
Chief, Neurology Service, San Francisco VA Medical Center (1984-90)  
Director, Center for Neural Injury (1984-91)  
Professor of Neurology in Residence (1984-91)
- 1990-91 James Cook University, Townsville, Australia  
Visiting Professor, Dept. of Chemistry and Biochemistry,
- 1991- Georgetown University Medical Center, Washington, DC  
Associate Dean for Biomedical Sciences, Graduate School (1991-1995)  
Dean of Research and Graduate Education, Medical Center (1991-1996)  
Scientific Director (1991-1996)  
Professor of Neurology and Pharmacology, Medical School (1991- )  
Director, Georgetown Institute for Cognitive and Computational Sciences (1995-98)

**Honors and Awards**

Newman Award, San Francisco Neurologic Society, 1975; Chief Resident in Neurology, UCSF Medical Center, 1974-75; Outstanding Achievement Award for Research, United States Army, 1980; Prize-winning Paper, United States Army Science Conference, 1980; Exceptional Service Medal, USUHS, 1984; Editorial Boards: Archives of Neurology (1987-present); Associate Editor/Section Editor, Journal of Neurotrauma (1988-present); Clinical Trials Advisor (1996); President, Neurotrauma Society (1988, 1989); President, San Francisco Neurological Society (1990-91)

**Selected Publications** (36 out of 275+ papers and chapters)

- Holaday JW, and FADEN AI. Naloxone reversal of endotoxin hypotension suggests role of endorphins in shock. *Nature* 275: 450-451, 1978.
- FADEN AI and Holaday JW. Opiate antagonists: A role in the treatment of hypovolemic shock. *Science* 205: 317-318, 1979.
- FADEN AI, Jacobs TP, and Holaday JW. Thyrotropin-releasing hormone improves neurologic recovery after spinal trauma in cats. *N Eng J Med* 305:1063-1067, 1981.
- Holaday JW, D'Amato R, and FADEN AI. Thyrotropin-releasing hormone improves cardiovascular function in experimental endotoxic and hemorrhagic shock. *Science* 213: 216-218, 1981.
- FADEN AI, Jacobs TP, Holaday JW. Opiate antagonist improves neurologic recovery after spinal injury. *Science* 211: 493-494, 1981.

- Lux WE, Feuerstein Jr., G. and FADEN AI. Alteration of leukotriene D<sub>4</sub> hypotension by thyrotropin-releasing hormone. *Nature* 302: 82-824, 1983.
- FADEN AI, Chan PH, and Longar S. Alterations in lipid metabolism, (Na<sup>+</sup>,K<sup>+</sup>)-ATPase activity, and tissue water content of spinal cord following experimental traumatic injury. *J Neurochem* 48: 1809-1816, 1987.
- Vink R, McIntosh TK, Demediuk P, Weiner M, FADEN AI: Decline in intracellular free Mg<sup>2+</sup> may lead to irreversible tissue damage following brain injury. *J. Biol. Chem.* 15:757-761, 1988.
- FADEN AI, Simon RP: A potential role for excitotoxins in the pathophysiology of spinal cord injury. *Ann. Neurol.* 23:623-626, 1988.
- FADEN AI, Demediuk P, Panter S, Vink R: The role of excitatory amino acids and NMDA receptors in traumatic brain injury. *Science* 244: 798-800, 1989.
- Bakshi R, Newman A, FADEN AI: Dynorphin A-(1-17) induces alterations in free fatty acids, excitatory amino acids, and motor function through an opiate receptor-mediated mechanism. *J. Neurosci.* 10:3793-3800, 1990.
- FADEN AI, Yum SW, Lemke M, Vink R: Effects of TRH-analogue treatment on tissue cations, phospholipids and energy metabolism after spinal cord injury. *J. Pharmacol. Exp. Ther.* 255:608-614, 1990.
- Vink R, Portoghesi PS, FADEN AI: Kappa-opioid antagonist improves cellular bioenergetics and recovery after traumatic brain injury. *Am. J. Physiol.* 261:R1527-1532, 1991.
- FADEN AI. Dynorphin increases extracellular levels of excitatory amino acids in the brain through a non-opioid mechanism. *J. Neurosci.* 12(2):425-429, 1992.
- FADEN AI, Halt P. Platelet-activating factor reduces spinal cord blood flow and causes behavioral deficits after intrathecal administration in rats through a specific receptor mechanism. *J. Pharmacol. Exp. Ther.* 261(3):1064-1070, 1992.
- FADEN AI, Tzendzalian P: Platelet-activating factor antagonists limit glycine changes and behavioral deficits after brain trauma. *Am. J. Physiol.* 263:R909-R914, 1992.
- McIntosh TK, Fernyak S, Yamakami I, and FADEN AI. Central and systemic kappa opioid agonists exacerbate neurobehavioral response to brain injury in the rat. *Am. J. Physiol.* 267:R665-R672, 1994.
- Yakovlev AY and FADEN AI: Sequential expression of c-fos protooncogene, TNF-alpha and dynorphin genes in spinal cord following experimental traumatic injury. *Molec. & Chem. Neuropathol.* 23:179-190, 1994.
- Yakovlev AY, Krueger K and FADEN AI: Structure and expression of a rat kappa opioid receptor gene. *J. Biol. Chem.* 270:6421-6424, 1995.
- Mukhin A, Fan L and FADEN AI. Activation of metabotropic glutamate receptor subtype mGluR1 contributes to posttraumatic neuronal injury. *J. Neurosci.* 16(19):6012-6020, 1996.
- Basso DM, Beattie MS, Bresnahan JC, Anderson DK, FADEN AI, Gruner JA, Holford TR, Hsu CY, Noble LJ, Nockels R, Perot PL, Salzman S, Young W. MASCIS Evaluation of Open Field Locomotor Scores: Effects of Experience and Teamwork on Reliability. *J. Neurotrauma*, Vol. 13: 7, 1996
- Eldadah BA, Yakovlev AG, and FADEN AI. The role of Ced-3-related cysteine proteases in apoptosis of cerebellar granule cells. *J Neurosci* 17(16):6105-6113, 1997.
- Yakovlev AG, Knoblach SM, Fan L, Fox GB, Goodnight R, and FADEN AI. Activation of CPP-32like caspases contributes to neuronal apoptosis and neurological dysfunction after traumatic brain injury. *J Neurosci* 17(19):7415-7424, 1997.
- Beattie MS, Bresnahan JC, Komon J, Tovar CA, Van Meter M, Anderson DK, FADEN AI, Hsu CY, Noble LJ, Salzman S, Young W. Endogenous Repair after Spinal Cord Contusion Injuries in the Rat. *Exp. Neurology* 148, 453-463 (1997).
- Mukhin AG, Ivanova SA, Allen JW, and FADEN AI. Mechanical injury to neuronal/glial cultures in microplates: role of NMDA receptors and pH in secondary neuronal cell death. *J Neurosci Res*, 51:748-758, 1998.
- Fox GB, Fan L, LeVasseur RA, and FADEN AI. Sustained sensory/motor and cognitive deficits associated with neuronal apoptosis following controlled cortical impact brain injury in the mouse. *J Neurotrauma*, Vol. 15: 599-614, 1998.
- Fox GB, and FADEN AI. Traumatic Brain Injury Causes Delayed Motor and Cognitive Impairment in a Mutant Mouse Strain Known to Exhibit Delayed Wallerian Degeneration. *J Neurosci Res*, 53:718-727, 1998.
- Knoblach S., and FADEN AI. Interleukin-10 Improves Outcome and Alters Proinflammatory Cytokine Expression after Experimental Traumatic Brain Injury. *Exp Neurol* 153, 143-151, 1998.
- Knoblach S., Fan L., and FADEN AI Early Neuronal Expression of TNF-α contributes to neurological dysfunction after experimental brain injury in the rat. *J Neuroimmunol* (in press).
- Fox GB, Fan L, LeVasseur RA, and FADEN AI. Effect of traumatic brain injury on mouse spatial and non-spatial learning in the Barnes Circular Maze. *J Neurotrauma*, 15:1037-1046, 1998.
- Allen JW, Knoblach SM, FADEN AI. Beta-amyloid-induced apoptosis of cerebellar granule cells and cortical neurons: exacerbation by selective inhibition of group I metabotropic glutamate receptors. *Neuropharmacology* (in press).
- Fox GB, Le Vasseur RA, FADEN AI. Behavioral responses of C57BL/6, FVB/NN and 129/SvEMS mouse strains to traumatic brain injury: Implications for gene targeting approaches to neurotrauma. *J Neurotrauma* (in press)
- Allen JW, Knoblach SM, FADEN AI. Combined mechanical trauma and metabolic impairment in vitro induces NMDA receptor-dependent neuronal cell death and caspase-3 dependent apoptosis. *FASEB J* (in press).
- Fan L, Yakovlev AG, FADEN AI. Site-specific cleavage of 28S rRNA as a marker of traumatic brain injury. *J Neurotrauma* (in press).
- Allen JW, Ivanova SA, Fan L, Espey MG, Basile AS, FADEN AI. Group II metabotropic glutamate receptor activation attenuates traumatic neuronal injury and improves neurological recovery after traumatic brain injury. *J. Pharmacol. Exp. Ther.* (in press).
- FADEN AI, Fox GB, Fan L, Araldi GL, Qiao L, Swang, Kozikowski AP. Novel dual-substituted TRH analog improves motor and cognitive recovery after traumatic brain injury in rodents. *Amer J Physiol.* (in press).